

CLAIMS:

1. A cleaning sheet for removing foreign matter adhering on a tip of a probe needle of a probe card, comprising a cleaning layer having a surface, the surface of the cleaning layer forming one surface of the cleaning sheet, wherein the cleaning layer contains a urethane polymer and a vinyl polymer.
2. The cleaning sheet as claimed in claim 1, wherein the vinyl polymer is an acrylic polymer.
3. The cleaning sheet as claimed in claim 1, wherein the cleaning layer comprises a mixture containing a urethane polymer and a vinyl monomer, the mixture being irradiated with radiation to cure it.
4. The cleaning sheet as claimed in claim 1, wherein the cleaning layer is formed by reacting a polyol and a polyisocyanate in the presence of a vinyl monomer to form the urethane polymer to form a mixture containing the urethane polymer and a vinyl monomer, and irradiating the mixture with radiation to cure it.
5. The cleaning sheet as claimed in claim 1, further comprising a backing layer.

6. The cleaning sheet as claimed in claim 5, further comprising a pressure-sensitive adhesive layer, wherein the cleaning layer is provided on one surface of the backing layer and the pressure-sensitive adhesive layer is provided on another surface of the backing layer.

7. The cleaning sheet as claimed in claim 1, wherein the cleaning layer has an initial elastic modulus of 0.5 to 100 N/mm<sup>2</sup>.

8. The cleaning sheet as claimed in claim 7, wherein the vinyl polymer is an acrylic polymer.

9. The cleaning sheet as claimed in claim 7, wherein the cleaning layer comprises a mixture containing a urethane polymer and a vinyl monomer, cured by irradiation with radiation.

10. The cleaning sheet as claimed in claim 7, wherein the cleaning sheet layer comprises a mixture containing a urethane polymer and a vinyl monomer, the urethane prepolymer being formed by reaction between a polyol and a polyisocyanate in the presence of the vinyl monomer, the mixture being cured by irradiation with radiation.

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11. The cleaning sheet as claimed in claim 7, further comprising a backing layer.

12. The cleaning sheet as claimed in claim 11, further comprising a pressure-sensitive adhesive layer, wherein the cleaning layer is provided on one surface of the backing layer and the pressure-sensitive layer is provided on another surface of the backing layer.

13. A transporting member comprising a support and the cleaning layer of claim 1 provided on the support.

14. The transporting member as claimed in claim 13, wherein the cleaning sheet is provided on the support through a sticking means.

15. The transporting member as claimed in claim 13, wherein the support is a wafer.

16. A transporting member comprising a support and the cleaning sheet of claim 7 provided on the support.

17. The transporting member as claimed in claim 16, wherein the cleaning sheet is provided on the support through a sticking means.

18. The transporting member as claimed in claim 16, wherein the support is a wafer.

5 19. A method of producing a cleaning sheet, comprising the steps of:

reacting a polyol and a polyisocyanate in the presence of a vinyl monomer to form a urethane polymer, thereby forming a mixture containing the urethane polymer and the vinyl monomer;

10 coating the mixture on a release sheet or a backing layer; and

irradiating the coated mixture with radiation to cure the mixture to form the cleaning layer.

15 20. A method of cleaning a probe needle, comprising contacting the cleaning layer of the cleaning sheet of claim 1 or the cleaning layer of the transporting member of claim 7 with a probe needle of a probe card having a tip to remove foreign matter adhering on the tip of the probe needle.

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